

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for reproducing animation data using an enhanced navigation engine of an interactive recording medium player, the method comprising:

receiving, in the enhanced navigation engine of the interactive recording medium player, first graphic information comprising control data and animation data associated with audio/video (A/V) data read from a first source;

extracting from the first graphic information by the enhanced navigation engine, second and third graphic information;

decoding the second and third graphic information by the enhanced navigation engine into first and second image data, respectively; and

reproducing at least one of the first and second image data by the enhanced navigation engine in the form of animated images, based on the control data,

wherein the control data is included in a header portion of the first graphic information and the control data includes display information associated with a width and height of a display screen and frame information for restricting a frame size and a frame rate.

2. (Original) The method of claim 1 further comprising extracting first control data from the first graphic information.

3. (Original) The method of claim 1 further comprising extracting second control data from the second graphic information.

4. (Original) The method of claim 1 further comprising extracting third control data from the third graphic information.

5. (Original) The method of claim 1, wherein the first graphic information is a MNG (Multimedia Network Graphics) file.

6. (Original) The method of claim 1, wherein the second graphic information is a PNG (Portable Network Graphics) file.

7. (Original) The method of claim 1, wherein the third graphic information is a JNG (JPEG Network Graphics) file.

8. (Original) The method of claim 2, wherein the first control data comprises MNG (Multimedia Network Graphics) control information.

9. (Original) The method of claim 3, wherein the second control data comprises PNG (Portable Network Graphics) control information.

10. (Original) The method of claim 4, wherein the third control data comprises JNG (JPEG Network Graphics) control information.

11. (Original) The method of claim 1, further comprising:
extracting first control data from the first graphic information;
extracting second control data from the second graphic information; and extracting third control data from the third graphic information,
wherein the control data comprises first, second and third control information.

12. (Original) The method of claim 11, wherein:
the first control data comprises MNG (Multimedia Network Graphics) control information;
the second control data comprises PNG (Portable Network Graphics) control information;
and
the third control data comprises JNG (JPEG Network Graphics) control information.

13. (Original) The method of claim 11, wherein:
the first graphic information is a MNG (Multimedia Network Graphics) file;
the second graphic information is a PNG (Portable Network Graphics) file; and
the third graphic information is a JNG (JPEG Network Graphics) file.

14. (Currently Amended) A method for reproducing animation data using an enhanced navigation engine of an interactive recording medium player, the method comprising:

receiving, in the enhanced navigation engine of the interactive recording medium player, first graphic information comprising control data and animation data associated with audio/video (A/V) data read from a first source;

storing the first graphic information in a storage medium;

extracting from the first graphic information by the enhanced navigation engine, second and third graphic information;

decoding the second and third graphic information by the enhanced navigation engine into first and second image data, respectively;

extracting first, second and third control data from the first, second and third graphic information, respectively, by the enhanced navigation engine; and

reproducing at least one of the first and second image data by the enhanced navigation engine in the form of animated images, based on the control data,

wherein the control data comprises first, second and third control data,

wherein the first control data comprises MNG (Multimedia Network Graphics) control information, the second control data comprises PNG (Portable Network Graphics) control information, and the third control data comprises JNG (JPEG Network Graphics) control information, and

wherein the control data includes display information associated with a width and height of a display screen and frame information for restricting a frame size and a frame rate.

15. (Previously Presented) The method of claim 14, wherein:

the first graphic information is a MNG (Multimedia Network Graphics) file;

the second graphic information is a PNG (Portable Network Graphics) file; and

the third graphic information is a JNG (JPEG Network Graphics) file.

16. (Original) The method of claim 1, wherein the first source is an enhanced navigation medium.

17. (Original) The method of claim 1, wherein the first source is a content server.

18. (Original) The method of claim 14, wherein the storage medium is a temporary storage medium.

19. (Original) The method of claim 1, wherein the first source is an interactive digital versatile recording medium.

20. (Original) The method of claim 1, wherein the first graphic information comprises MNG (Multimedia Network Graphics), PNG (Portable Network Graphics) and JNG (JPEG Network Graphics) data chunks.

21. (Original) The method of claim 20, wherein the MNG data chunk comprises MNG header information and MNG end information, and control information for reproducing animated images.

22. (Original) The method of claim 20, wherein the PNG data chunk comprises PNG header information, PNG end information, object image data, and control information for controlling playback of the object image data.

23. (Original) The method of claim 20, wherein the JNG data chunk comprises JNG header information, JNG end information, JPEG image data, and control information for controlling playback of the JPEG image data.

24. (Original) The method of claim 23, wherein the JPEG image data comprises multidimensional density attributes for defining aspect/ratio conversions for image data displayed on a display device, based on the display device dimensions.

25. (Original) The method of claim 24, wherein the multidimensional density attributes comprise a horizontal pixel density X.

26. (Original) The method of claim 24, wherein the multidimensional density attributes comprise a vertical pixel density Y.

27. (Currently Amended) An enhanced navigation player of an interactive recording medium player, the enhanced navigation player configured to reproduce animation data, the enhanced navigation player comprising:

a first decoder configured to receive first graphic information comprising control data and animation data associated with audio/video (A/V) data read from a first source;

a second decoder configured to extract second graphic information in form of first decoded image data from the first graphic information;

a parser configured to extract third graphic information in form of second image data from the first graphic information;

a third decoder configured to decode the third graphic information into second decoded image data; and

an image manager configured to receive the first and second decoded image data and reproducing animated images, based on the control data,

wherein the control data is included in a header portion of the first graphic information and the control data includes display information associated with a width and height of a display screen and frame information for restricting a frame size and a frame rate.

28. (Previously Presented) The enhanced navigation player of claim 27, wherein the first decoder, the second decoder and the parser, respectively extract first, second and third control information from respectively the first, second and third graphic information.

29. (Previously Presented) The enhanced navigation player of claim 27 wherein the first control data comprises MNG (Multimedia Network Graphics) control information, the second control data comprises PNG (Portable Network Graphics) control information, and the third control data comprises JNG (JPEG Network Graphics) control information.

30. (Previously Presented) The enhanced navigation player of claim 27, wherein:
the first graphic information is a MNG (Multimedia Network Graphics) file;
the second graphic information is a PNG (Portable Network Graphics) file; and
the third graphic information is a JNG (JPEG Network Graphics) file.

31. (Previously Presented) The enhanced navigation player of claim 27, wherein the first source is an enhanced navigation medium.

32. (Previously Presented) The enhanced navigation player of claim 27, wherein the first source is a content server.

33-50. (Cancelled)

51. (Previously Presented) The enhanced navigation player of claim 27, further comprising a storage medium for temporarily storing first graphic information received by the first decoder.

52. (Previously Presented) The enhanced navigation player of claim 27, wherein the first source is an interactive digital versatile recording medium.

53. (Previously Presented) The enhanced navigation player of claim 27, wherein and the first graphic information comprises MNG (Multimedia Network Graphics), PNG (Portable Network Graphics) and JNG (JPEG Network Graphics) data chunks.

54. (Previously Presented) The enhanced navigation player of claim 53, wherein the MNG data chunk comprises MNG header information and MNG end information, and control information for reproducing animated images.

55. (Previously Presented) The enhanced navigation player of claim 53, wherein the PNG data chunk comprises PNG header information, PNG end information, object image data, and control information for controlling playback of the object image data.

56. (Previously Presented) The enhanced navigation player of claim 53, wherein the JNG data chunk comprises JNG header information, JNG end information, JPEG image data, and control information for controlling playback of the JPEG image data.

57. (Previously Presented) The enhanced navigation player of claim 56, wherein the JPEG image data comprises multidimensional density attributes for defining aspect/ratio conversions for image data displayed on a display device, based on the display device dimensions.

58. (Currently Amended) An enhanced navigation player of an interactive recording medium player, the enhanced navigation player configured to reproduce animation data, the enhanced navigation player comprising:

- a MNG (Multimedia Network Graphics) decoder configured to receive MNG graphic information comprising control data and animation data associated with audio/video (A/V) data read from at least one of an enhanced navigation medium and a content server;

- a PNG decoder configured to extract PNG graphic information in form of first decoded image data from the first graphic information;

- a JNG parser configured to extract JNG graphic information in form of JPEG image data from the MNG graphic information;

- a JPEG decoder configured to decode the JNG graphic information into second decoded image data; and

- a MNG layout manager configured to receive the first and second decoded image data and reproducing animated images, based on the control data,

wherein the control data includes display information associated with a width and height of a display screen and frame information for restricting a frame size and a frame rate.

59. (Previously Presented) The enhanced navigation player of claim 58, wherein the MNG decoder, the PNG decoder and the JNG parser, respectively extract MNG, PNG and JNG control information from respectively the MNG, PNG and JNG graphic information.